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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,453	12/20/2001	Brad Allen Medford	8285/487	4820

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EXAMINER

REKSTAD, ERICK J

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/037,453	Applicant(s) MEDFORD ET AL.	
	Examiner Erick Rekstad	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is an Office Action in response to the RCE filed on February 28, 2006 where in claims 1-22 are presented for examination.

Please note that the Examiner's art unit has changed from 2613 to 2621.

Response to Arguments

Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-13, 15-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,778,607 to Zaccarin in view of US Patent 5,253,055 to Civanlar et al. and further in view of US Patent 6,335,760 to Sato.

[claims 1-3]

As shown in Figures 3 and 4, Zaccarin teaches providing a plurality of encoded video streams. Further as shown in Figure 5, Zaccarin teaches MPEG encoding of the input stream using a DCT operation (504) (Col 5 Lines 54-61). Zaccarin further teaches the use of the plurality of encoded video streams in order to provide different bit-rates for optimal quality for different bandwidths (Col 5 Lines 9-26). Zaccarin further teaches the bit-rates are different (Col 5 Lines 45-47). As shown in Figure 3, Zaccarin teaches

the compression using a single compression engine to provide the encoded signals at substantially the same time (Col 5 Lines 27-31 and Lines 45-47). Zaccarin further teaches the obtaining of the DCT coefficients once for the encoding engine (Col 5 Lines 58-61). Zaccarin does not teach the multiple streams being produced using different numbers of coefficient bits.

Civanlar teaches the prior art of a low-complexity method of scalable video encoding by sub-sampling the DCT coefficients. Civanlar further teaches such an encoding may be implemented using a slightly modified version of the MPEG-1 standard (Col 1 Lines 29-50). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the sub-sampling method of Civanlar with the encoding method of Zaccarin as both are MPEG based and the sub-sampling is a low-complexity method of scaling video as taught by Civanlar. Civanlar does not specifically teach the method of providing the DCT coefficients with different numbers of bits.

As shown in Figure 2, Sato teaches the encoding of an image using discrete cosine transform. Sato further teaches the ability to provide a DCT-encoded signals with different coefficient bits based on the capabilities of the user's display (Col 9 Line 48-Col 10 Line 29). Sato specifically teaches the second (6 bits) and third (4 bits) DCT-encoded signals are less than the first (8 bits) DCT-encoded signal as required by claims 1 and 2. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method of Sato with the encoding method of Zaccarin

and Civanlar in order to provide multiple bitstreams at varying qualities using a simple DCT sub-sampling method as taught by Sato.

[claims 4-5]

As shown above Zaccarin teaches both DCT-encoded signals have different bandwidths and bit-rates (Col 5 Lines 9-16 and 45-47). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the DCT-encoding method of Sato with the plurality of outputs taught by Zaccarin in order to provide multiple users, with varying capabilities, a video signal.

[claim 6]

Zaccarin further teaches the signals are substantially synchronized (Col 5 Lines 32-44, Fig. 4).). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the DCT-encoding method of Sato with the plurality of outputs taught by Zaccarin in order to provide multiple users, with varying capabilities, a video signal.

[claims 8-13]

Zaccarin teaches the method stored in a computer readable medium for use by a general purpose computer (Col 2 Lines 40-55).

[claims 15-20]

As shown in Figure 1 of Sato and further in Figures 2, 3, 5 and 6 of Zaccarin, Sato and Zaccarin teach the system to perform the method of claims 1-6.

[claim 22]

As shown above, Sato teaches the removal of at least one lesser significant bit (Col 9 Lines 51-58 and Col 10 Lines 22-23).

Claims 7, 14, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaccarin, Civanlar and Sato as applied to claims 1, 8, and 15 above, and further in view of US Patent 5,604,494 to Murakami et al.

[claims 7, 14, and 21]

Zaccarin, Civanlar and Sato teach the method and system for producing multiple encoded streams. Sato teaches the use of 8 bits for t . Zaccarin and Civanlar do not specifically teach the number of bits for each stream. Murakami teaches the use of 12, 13 or 14 bits as a common bit number to produce a compression rate of $\frac{1}{2}$ (Col 18 Lines 28-37). It would have been obvious to one of ordinary skill in the art at the time of the invention to use 12, 13 or 14 bits for the bit number of a stream in the system of Zaccarin, Civanlar and Sato in order to produce a compression rate of $\frac{1}{2}$ as taught by Murakami.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick Rekstad whose telephone number is 571-272-7338. The examiner can normally be reached on 8-5.

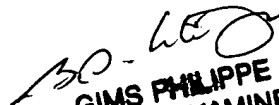
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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PRIMARY EXAMINER